



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

EARLY PSYCHOLOGICAL THEORIES
OF
HERBERT SPENCER

By GEORGE BION DENTON
Northwestern University

The mature views of Herbert Spencer upon the science of psychology were conceived somewhat under the influence of British philosophy and more under the influence of Biological Evolution. But earlier, he held views representing, in the main, a quite different development. Though the British philosophy was already present, the evolutionary thinking was replaced by a heterodox phrenology. These earlier views might, perhaps, be disregarded—as Spencer himself disregarded them in his *Principles of Psychology*—if it were not that they “adumbrated” (as he might have said) theories which have been developed—and supposedly have been originated—within recent years. Presenting crude notions of Fatigue and of Attention, they constitute a real, though isolated, chapter in the history of modern psychology.

The later psychological views of Spencer were, of course, developed at length in his *Principles of Psychology*, published in 1855; his earlier views, in their completest form, furnished the basis of psychological theory for the essay *The Philosophy of Style*. It may seem remarkable that these two works, representing radically different points of view, should have been published within three years of each other; and the difficulty is increased by the fact that Spencer's letters of the spring of 1852 show that by that time he had already planned his *Psychology* and was at work upon it.¹ The difficulty is removed by the hypothesis that *The Philosophy of Style*, being a revision of an essay, *Force of Expression*, written

¹ *Autobiography*, I, 452-454.

about 1844,² differed very little in substance from the earlier essay, except in an added paragraph at the close designed to give the essay an evolutionary turn.³

At the age of eleven or twelve, Spencer became a believer in phrenology, and continued such for many years.⁴ In time, however, his views ceased to be in strict accord with the leaders of phrenological theory,⁵ and the three articles⁶ which Spencer published in the *Zoist*, a phrenological journal, in 1843 and 1844, were all heretical. Early in 1846 Spencer devised a Cephalograph, an instrument for making accurate measurements of skulls. Before executing a workable instrument of this design, he became entirely skeptical of phrenology,⁷ and his interests turned to other schools of psychology. The *Principles of Psychology*, when it appeared in 1855, was, on the whole, opposed rather than inclined to phrenology, and a passage of several paragraphs⁸ was devoted to a judicious criticism of phrenology as a system and to a denial of some of its leading positions.

In *The Philosophy of Style*, Spencer did not attempt to set forth a complete system of psychology, phrenological or otherwise, but attempted to expound only such principles of mental operation as would explain the effective use of language in discourse. Three features of this psychology are especially interesting—the implied theories of the Faculties, of Fatigue, and of Attention.

THE FACULTIES

By such expressions as "every faculty"⁹ and "group of faculties,"¹⁰ in *The Philosophy of Style*, Spencer implied that the faculties were numerous. He named several, such as the "faculty of reverence"¹¹ and the faculty of "approbation."¹²

These faculties, he apparently regarded, not merely as

² *Ibid.*, I, 258; 468-469; *Life and Letters*, I, 86.

³ The proof of this hypothesis the writer has undertaken in a separate study.

⁴ *Autobiography*, I, 227-231.

⁵ *Ibid.*, I, 261, 282; *Life and Letters*, II, 310.

⁶ "A New View of the Functions of Imitation and Benevolence," *Zoist*, I (1843); "On the Situation of the Organ of Amativeness," and "A Theory concerning the Organ of Wonder," *Zoist*, II (1844).

⁷ *Autobiography*, I, 634.

⁸ Part IV, ch. 8, 606-611.

⁹ *Westminster Review*, 58 (1852), 446.

¹⁰ *Ibid.*, 455.

¹¹ *Ibid.*, 456.

¹² *Ibid.*, 456.

subjective entitles, modes of operation of the mind, but as physiological organs. His theory of fatigue, which will be dealt with in the next section, is evidence of their physiological nature.

The faculties were roughly classified. ". . . In the reflective faculties," he wrote, "in the imagination, in the perceptions of the beautiful, the ludicrous, the sublime, in the sentiments, the instincts, in all the mental powers, however we may classify them"¹³ Apparently this was not meant for a systematic classification, but it seems possible to distinguish three or four groups, such as "reflective faculties," "sentiments," "instincts," and possibly "perceptions." Spencer frequently spoke of "perceptive faculties,"¹⁴ at other places in the essay.

Nothing comparable to these minute and numerous faculties suggested in *The Philosophy of Style* appeared in the *Psychology*. In the latter work, the structural elements of mind were the same as those of the British sensationists. The aspects of Intelligence which Spencer treated were Reflex Action, Instinct, Memory, Reason, the Feelings, the Will,¹⁵ and none of these (as he carefully pointed out) is distinct from another.¹⁶ In the *Psychology* his chief criticism of phrenology was that it made too sharp the demarcation of the faculties.¹⁷ On the contrary, in *The Philosophy of Style* it is the distinctness and the unalterable character of the individual faculty that explains the effect of such devices as Antithesis, Climax, and Anticlimax. "The opposition of two thoughts that are the reverse of each other in some prominent trait insures an impressive effect; and does this by giving a momentary relaxation to the faculties addressed."¹⁸

This feature of Spencer's early psychology was equally unlike anything held by the British philosophers. The latter, though differing considerably among themselves in regard to the number of faculties, usually conceived a three to five-fold division, comprising such general faculties as Intellect, Emotion, Will. Moreover, none of the British philosophers, not even Hartley, associated the faculties with distinct organs of the brain.

When compared with the faculties as conceived by phrenologists, however, the faculties as represented in *The*

¹³ *Ibid.*, 455.

¹⁴ *Ibid.*, 454.

¹⁵ *Principles of Psychology*, Part IV, chs. IV-IX.

¹⁶ *Ibid.*, 584.

¹⁷ *Ibid.*, 609.

¹⁸ *Westminster Review*, 58 (1852), 456.

Philosophy of Style were (it is hardly necessary to show) very similar to those of phrenology; and such phrenological names as "reverence," "ideality," and "approbativeness,"¹⁹ for example, corresponded to Spencer's "reverence," "beauty," and "approbation."²⁰ The phrenological faculties, too, like Spencer's, were distinct, physical, and anatomically localized.²¹ Similarity in the classification of the faculties may also be noticed, for Spurzheim divided them into Intellectual and Affective, with subdivisions of Reflective and Perceptive under the first head, and Sentiments and Propensities under the second.²²

FATIGUE

Spencer's theory of fatigue, stated most definitely in the latter part of the essay, was implied throughout. In the third paragraph, explaining the general principle of economy of attention in the use of language, Spencer wrote: "A reader or listener has at each moment but a limited amount of mental power available. To recognize and interpret the symbols presented to him requires part of this power: to arrange and combine the images suggested requires a further part; and only that part which remains can be used for the realization of the thought conveyed."

Later, a more explicit statement was made: "Without going at length into so wide a topic as the exercise of faculties and its reactive effects, it will be sufficient here to call to mind that every faculty (when in a state of normal activity) is most capable at the outset; and that the change in its condition, which ends in what we term exhaustion, begins simultaneously with its exercise. This generalization, with which we are all familiar in our bodily experiences, and which our daily language recognizes as true of the mind as a whole, is equally true of each mental power, from the simplest of the senses to the most complex of the sentiments. If we hold a flower to the nose for long, we become insensible to its scent. We say of a very brilliant flash of lightning that it blinds us; which means that our eyes have for a time lost their ability to appreciate light. After eating a quantity of honey, we are apt to think our tea is without sugar. The phrase 'a deafening roar,' implies that men find a very loud sound temporarily incapacitates them from hearing faint ones. Now, the truth

¹⁹ Spurzheim, *Phrenology*, 225-228; 243-245; 212-214.

²⁰ *Westminster Review*, 58 (1852), 456.

²¹ Spurzheim, *Phrenology*, 90-98.

²² *Ibid.*, 149-151.

at once recognized in these, its extreme manifestations, may be traced throughout; and it may be shown that . . . in all the mental powers . . . action exhausts; and that in proportion as the action is violent, the subsequent prostration is great."²³

Discussions of fatigue as a factor in mental phenomena are common enough in the psychologies of today, but in 1852 and before one would have looked for them in vain in the works of British psychologists and philosophers. Some phases of Spencer's own biological view of psychology set forth in the *Psychology* would have accommodated his earlier theory of fatigue, but nothing of the sort appeared in that work.

Phrenologists, however, made considerable use of the idea of fatigue. "The faculties of animal life," wrote Spurzheim, "cannot act incessantly, they require repose. Study of the same subject, too long protracted, causes fatigue; by changing this we may still continue our labors. Now if the brain were a single organ, that performed all the functions of the mind, why should it not be still further fatigued by this new species of action? Although our eyes be fatigued by looking at pictures, we can still listen to music, because there is a particular organ for each of these sorts of impressions."²⁴ "As during watching the same organ is not always active, but repose at intervals; so, during sleep, all the organs do not sink into inactivity together, but a particular one continues its function, and then the peculiar state called dreaming supervenes. . . . Every corporeal organ being fatigued takes rest, and this state of rest is sleep; but single, or even several organs, may be active while the others repose."²⁵

ATTENTION

Attention is the most interesting of Spencer's early psychological conceptions. In the first part of the essay (consisting of fifty paragraphs) attention was the most comprehensive power of intellect, and its economy was represented as the great desideratum in the use of language.

In several respects, attention, as Spencer conceived it, had features in common with attention as it is generally regarded by psychologists today.

On the subjective side, the result of attention upon the idea seems to be to increase the effectiveness of the idea.

²³ *Westminster Review*, 58 (1852), 437.

²⁴ Spurzheim, *Phrenology*, 95.

²⁵ *Ibid.*, 96.

Spencer used commonly the terms "vivid,"²⁶ "forcible,"²⁷ and "effective"²⁸ to denote the influence of attention upon the content of mind. Other subjective features, such as the "selective" function of attention and its effect upon retention in memory, scarcely arose for consideration.

The physiological character of Spencer's view of attention is most noteworthy. Attention is apparently a reservoir of physical energy at the service of mental life. Every mental act of any sort requires attention; it uses up energy. The energy of attention is associated with the activity of the whole mind, or rather with every part of it. It is a fixed amount—"A reader or listener has at each moment but a limited amount of mental power available"²⁹—and it may be temporarily drained to varying degrees of fatigue or exhaustion. The attention is "absorbed"³⁰ or "frittered away,"³¹ or there is a "strain upon the attention."³² Moreover, it may be drained through many channels; that is, it is applicable to the needs of any faculty. Finally, attention reenforces the activity of specialized portions of the brain; and apparently this physiological reenforcement corresponds to the mental effectiveness produced by attention. Attention may be taxed by severe demands upon one faculty or by multitudinous demands upon many faculties simultaneously. In one place Spencer began, ". . . If some subtlety in the argument absorb the attention—if every faculty be strained in endeavoring to catch the speaker's or writer's drift—"³³ Very clearly "straining every faculty" is the same as "absorbing the attention;" and indicates as clearly as may be in brief the relation of attention and faculties, explained above.

Dominant as attention was in *The Philosophy of Style*, it did not appear again as a psychological entity of importance in Spencer's works. In *The Philosophy of Style*, the word "attention" appeared seventeen times in fifty paragraphs.³⁴ In *Principles of Psychology*, the word appeared twenty times in six hundred and twenty pages. Six³⁵ of these latter

²⁶ *Westminster Review*, 58 (1852), 439.

²⁷ *Ibid.*, 440.

²⁸ *Ibid.*, 451.

²⁹ *Ibid.*, 437.

³⁰ *Ibid.*, 438.

³¹ *Ibid.*, 451.

³² *Ibid.*, 454.

³³ *Ibid.*, 446.

³⁴ *Ibid.*, 436, 437 (three times), 438 (twice), 439, 440, 443, 446, 449 (twice), 451, 454 (four times).

³⁵ *Principles of Psychology*, 122, 127, 209, 363, 449, 616.

instances had no psychological significance, and none of the others³⁶ indicated anything like a theory of attention.

Whence could the suggestion for his theory of attention have come? Modern writers upon psychology assert that the British thinkers did not study attention, as it is conceived today. "With some notable exceptions (Wolff, Kant, and James Mill) the attention was greatly neglected until more modern times, notably by the English empiricists. . . . It was considered an unanalysable attribute of the soul, and direct evidence of the independent activity of the mental principle (Hamilton, Carpenter, McCosh)."³⁷ Professor James wrote: "Strange to say so patent a fact as the perpetual presence of selective attention has received hardly any notice from psychologists of the English empiricist school. The Germans have explicitly treated of it, either as a faculty or as a resultant, but in the pages of such writers as Locke, Hume, Hartley, Mill, and Spencer the word hardly occurs, or if it does, it is parenthetically and as if by inadvertence."³⁸

Such writers, British and Continental, as may have treated of attention were probably all unknown to Spencer. He was never well read in philosophy, and the little that he knew by 1852 was mostly second hand. His own statements³⁹ in regard to his philosophical reading would make certain that no suggestion for his conception of attention could have been derived from the philosophers.

Attention was certainly not a fundamental and characteristic conception of phrenology; yet it was a conception that the phrenologists were constantly meeting on the Continent. Such conceptions as Memory, Association, and Will, Spurzheim did not directly attack, but reinterpreted in harmony with phrenology. Similarly, with attention. He wrote: "The word *attention* denotes no more than the active state of any intellectual faculty; or, in other terms, attention is the effect of the intellectual faculties, acting either from their proper force, or from being excited by external impressions, or by one or several affective faculties. Hence there are as many species of attention as fundamental faculties of the mind. . . . It is, indeed, absurd to expect success in an art or science, when the individual power on which its comprehen-

³⁶ *Ibid.*, 194, 195, 235, 281, 282, 299, 315, 477, 495, 503, 546.

³⁷ Baldwin, *Dictionary of Philosophy and Psychology*, article on "Attention."

³⁸ James, *Principles of Psychology*, I, 402.

³⁹ *Life and Letters*, I, 145-147.

sion depends is inactive. Again, the more active the power is, the more it is attentive."⁴⁰

Coupled with the phrenological view of physiological exhaustion of the faculties, this doctrine would hold that attention is the state of greatest physiological activity of an "organ" of the brain; and the greater the task of the organs or faculties, the greater the exhaustion of the attention. There was much in this phrenological view that is like Spencer's theory in *The Philosophy of Style*.

The conception of attention which Spurzheim was forced grudgingly to admit existed as a mental phenomenon of secondary importance, Spencer, the phrenological heretic, might well have welcomed as a fundamental organ of mind. Certain features of Spencer's article, "A Theory concerning the Organ of Wonder," published in the *Zoist* in 1844, point to such a view.

Spencer there proposed that what was commonly regarded by phrenologists as the Organ of Wonder was in truth an organ whose main function is to recall impressions once received.⁴¹ This theory was proposed by Spencer as supplementary to an article of the previous year, entitled "*Imitation and Benevolence*."⁴² In that article he reinterpreted the Organ of Imitation into an organ whose function was to excite sympathetic states of mind, while the Organ of Benevolence became "the grand centre of sensation, and is excited by the affections of all the other organs."⁴³ The names for the three organs, Wonder, Imitation, and Benevolence, became then Reviviscence, Sympathy, and Sensitiveness, respectively. The whole theory was summed up as follows, in the later article: "It was maintained that it is the primary office of the organ entitled Imitation, to excite in the mind of one being the feelings exhibited in another, and it is the aim of the present essay to show that the true duty of the adjoining organ, hitherto called Wonder, is the revival of intellectual perceptions. It is the object of both to bring certain other faculties into activity. By the one, feelings are recalled; by the other, impressions."⁴⁴

The next to the last sentence is to be noted: Reviviscence acts as a reenforcement of the intellectual faculties. In this respect, although applied to the service of memory only, it is

⁴⁰ *Phrenology*, 380.

⁴¹ *Zoist*, II (1844), 316-325.

⁴² *Zoist*, I (1843).

⁴³ *Ibid.*, 377.

⁴⁴ *Zoist*, II (1844), 322.

like attention in *The Philosophy of Style*, and might have been adapted to the needs of that essay.

Interesting in this connection is the fact that Dr. Bernard Hollander has identified Spencer's Organ of Wonder with the modern conception of attention. Dr. Hollander pointed out that Spencer, by assigning to that organ the function he did assign, anticipated the work of Professor Ferrier in regard to localization of functions in the brain.⁴⁵ And this conclusion Dr. Hollander arrived at, apparently, without knowledge of Spencer's use of attention in *The Philosophy of Style*.

Dr. Hollander quoted Ferrier in regard to the function of "area 12," which corresponds to the Organ of Wonder: ". . . the excitation of which causes the eyes to open widely, the pupils to dilate, with movements of the eyeballs and head. It gives the appearance of attention, and the movements indicated are essential to the revivification of ideas."⁴⁶

If, as Dr. Hollander believed, Spencer's Organ of Reviviscence anticipated the modern notion of the function of attention and its location in the brain, then it is very likely indeed that, in *The Philosophy of Style*, attention is merely a development and new application of the phrenological theory of reviviscence.

That Spencer should have changed the name of attention in the essay on style is easily understood. For one thing, the application to memory was not largely involved in the later essay. For another, Spencer admitted that the name "reviviscence" was awkward.⁴⁷ Finally, it is probable that in writing for *Westminster Review* (in which the essay on style appeared), Spencer was not desirous of suggesting totally unfamiliar terms, or phrenological terms which might call his psychology in question. He probably adopted the name "attention" because it was used by phrenologists in somewhat the same sense as he employed it, and because he found it occasionally in works on rhetoric⁴⁸ from which he borrowed considerably in writing *The Philosophy of Style*.

⁴⁵ *Westminster Review*, 139 (1893), 142-154.

⁴⁶ *Ibid.*, 148.

⁴⁷ *Zoist*, II (1844), 320.

⁴⁸ Spencer quoted from Blair the statement that "long sentences fatigue the reader's attention." See also, Denton, "Herbert Spencer and the Rhetoricians," in *Publications of the Modern Language Association of America*, XXXIV (1919), 89-111.

BRITISH SENSATIONISM AND ASSOCIATIONISM

The presence of phrenology in *The Philosophy of Style* did not preclude the use of British sensationism and associationism in that essay. As has already been said, when the theories of rival systems did not directly conflict, phrenologists were likely to admit their validity as explaining phenomena of secondary importance. The doctrines of the British philosophers explained some points where phrenology was vague or non-committal, and therefore they were sometimes given a qualified acceptance by phrenologists. In opposition to *tabula rasa*, the phrenologists believed that varying developments of the organs of mind produced varying experiences and characters,⁴⁹ but this doctrine did not exclude the operation of sensation and association but merely complicated it. Phrenologists admitted that it is through the medium of the external senses "that determinate consciousness of the external world is acquired,"⁵⁰ and they made some use of association.⁵¹

In *The Philosophy of Style* Spencer made use of the two fundamental assumptions of British psychology—sensationism and association. Ideas exist in the mind only in the form of "images." When one starts to think "horse," there "tends to arise," (and when one completes the process, there does arise) "in the mind, a picture answering to the word," and the horse must be black, or brown, or some color at least. What is true in this regard of the more specific ideas is equally true of the most general concepts. "We do not think in generals but in particulars." When we think a class-idea, "we represent it to ourselves by calling to mind individual members of it." Or, in other words, to represent the general idea, the thinker, "has to choose from among his stock of images, one or more, by which he may figure to himself the genus mentioned."⁵²

The assumptions of British associational psychology are obvious in many places in *The Philosophy of Style*. Associations were designated as "powerful" or "strong" in proportion to the "ease and rapidity of the suggestive action." An association becomes powerful through repetition.⁵³

⁴⁹ Spurzheim, *Phrenology*, Part I, sec. IX, ch. I; secs. IV and VII; Part II, sec. III.

⁵⁰ *Ibid.*, Part I, sec. IX, ch. I, 253.

⁵¹ Combe, *A System of Phrenology*, 420; 499-503; Spurzheim, *Phrenology*, Part II, sec. I, 387-388.

⁵² *Westminster Review*, 58 (1852), 439.

⁵³ *Ibid.*, 437-438. When the essay was republished in 1858, Spencer substituted the word "strong" for "powerful."

Perceptions of objects and processes of reasoning were regarded as complex, consisting of concatenations of simple ideas or impressions. The mind, after recognizing and interpreting the bare symbols, is obliged to arrange and combine the suggested images to constitute thoughts.⁵⁴ Even in the case of perceiving words, the syllables must be connected by the mind.⁵⁵ All thoughts are "built up" according to some natural or customary order of associating their elements; and for that reason, the elements of a sentence must be ordered according to such associations.⁵⁶ The force of suggestion depends upon association, for "each of the facts mentioned presupposing numerous others, calls up these with more or less distinctness, and revives the feeling . . . with which they are connected in our experience."⁵⁷

That Spencer was familiar with the terms and positions of British psychologists, at least to the extent shown in *The Philosophy of Style*, is evidenced in his writings known certainly to be of early date.⁵⁸ The source of his knowledge was probably not the British philosophers themselves. Much more likely, he took his doctrine second hand from the works of two rhetoricians, consulted in the preparation of the essay on style. Lord Kaimes' *Elements of Criticism*⁵⁹ and George Campbell's *Philosophy of Rhetoric*⁶⁰ contained accounts of British psychology sufficient to supply Spencer with all the knowledge he needed for his essay.

⁵⁴ *Ibid.*, 436.

⁵⁵ *Ibid.*, 438.

⁵⁶ *Ibid.*, 439.

⁵⁷ *Ibid.*, 451.

⁵⁸ The terms are to be found here and there in "A Theory concerning the Organ of Wonder," in "Imitation and Benevolence," in the preface to his father's *Lucid Shorthand*.

⁵⁹ Ch. XVIII, sec. 2; also Appendix of Terms Defined, paragraphs 41 to 44.

⁶⁰ Bk. I, ch. V, part ii; ch. VII, sec. iii; Bk. II, ch. VII, sec. i.